

Remarks

Claims 11 to 21 are now pending.

Applicant thanks the Examiner for stating that overcoming the § 112 rejections can lead to allowance, since no prior art has been found that the claims read upon.

With respect to the Examiner's request on page 2 of the Office Action, a Substitute Specification accompanies this Amendment to facilitate the understanding of the changes made to the Specification by the Preliminary Amendment. In accordance with 37 C.F.R. § 1.121(b)(3), the Substitute Specification (including the Abstract, but without the claims) contains no new matter. The amendments reflected in the Substitute Specification (including Abstract) were made, in part, to conform the Specification and Abstract to amendments made and entered in the parent application, which has been allowed. As required by 37 C.F.R. § 1.121(b)(3)(iii) and § 1.125(b)(2), a Marked Up Version Of The Substitute Specification comparing the Specification of record and the Substitute Specification also accompanies this Amendment. In the Marked Up Version, underlining indicates added text and brackets indicate deleted text. Approval and entry of the Substitute Specification (including Abstract) is respectfully requested.

With respect to the Examiner's comments on pages 2 to 3 of the Office Action, claims 11 to 21 were rejected as indefinite under the second paragraph of 35 U.S.C. § 112. In particular, the Examiner asserted a an omission of essential structural cooperative relationships in claim 11.

Claims 11 and 19 have been rewritten to better clarify the claims. It is therefore respectfully requested that the Office Action's indefiniteness rejections be

withdrawn, since claims 11 to 21 as presented plainly satisfy the definiteness requirement.

It is therefore respectfully requested that claims 11 to 21 are allowable, and that the present application issue as early as possible.

Respectfully submitted,

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Dated: 5/2/03

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AMENDMENT VERSION WITH MARKINGS**IN THE CLAIMS:**

Without prejudice, please amend claims 11 and 19 as follows:

11. (Twice Amended) An interferometric measuring device for detecting one of a shape and a distance of a rough surface, the measuring device comprising:

at least one spatially coherent beam gun unit for emitting a short time coherent broad-band beam;

a first beam splitter for splitting the short time coherent broad band beam into a first partial beam and a second partial beam;

a first device for one of modulating a phase of the first partial beam with respect to a phase of the second partial beam, and for shifting a frequency of the first partial beam with respect to a frequency of the second partial beam by a heterodyne frequency;

a time delay element arranged in a beam path of one of the first partial beam and the second partial beam, for producing a difference of optical [wavelengths] path lengths of the first and second partial beams, the difference being greater than a coherence length of the beam emitted by the at least one spatially coherent beam gun unit, the first partial beam and the second partial beam being superimposed on one another to form a first superimposed beam;

a measuring probe for dividing the [short time coherent broad-band] first superimposed beam into a reference beam and a measuring beam, the measuring probe including a reference arm for guiding and reflecting the reference beam therein, and a measuring arm for guiding and reflecting the measuring beam onto the rough surface, wherein the measuring probe compensates for the difference of optical [wavelength] path lengths so that the measuring beam in the measuring arm and the reference beam in the reference arm are able to interfere with one another;

a superimposing unit for superimposing the reflected measuring beam on the reflected reference beam;

a beam splitting and receiving unit for splitting the superimposed beam into at least two beams having different wavelengths and for converting the at least two beams into

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electrical signals;

an analyzer for determining the one of the shape and the distance of the rough surface as a function of a phase difference of the electrical signals; and

a remote unit separate from the measuring probe, wherein the at least one spatially coherent beam gun unit, the first beam splitter, and the first device are arranged in the remote unit.

19. (Twice Amended) The measuring device according to claim 11, wherein:

the measuring probe has a beam splitter, the measuring probe being one of a Michelson interferometer and a Mirau interferometer; and

an optical path difference provided by the measuring arm and the reference arm compensates for the difference in optical [wavelengths] path lengths produced by the time delay element.